"Unit tests"

in Vue

Testing

- Manual → Doing It By Hand
- Automatic → Testing Your Code with Software

What for?

- improve code quality
- boost confidence
- better documentation

Never test implementation!!!!!

The Three Main Types of Automatic Testing

- Unit Testing
- Integration Testing
- Automation/Acceptance Testing

Unit tests

- small encapsulated pieces
- mocking (fake implementation)
- no connection to other services (eg. database)

"A single unit of work"

e2e/Acceptance Testing

- e2e tests - does the application flow behaves as expected from beginning to end ?
- Acceptance tests - does the API return the correct model ?
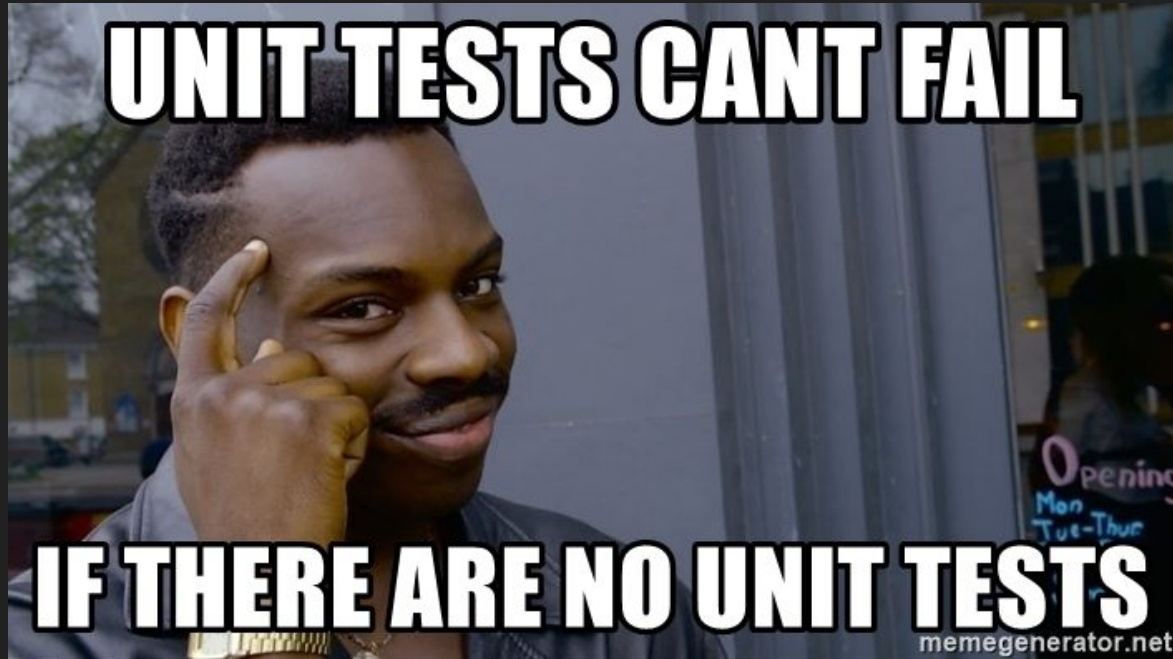
Integration Testing

- communication between modules, classes, 3rd party software, framework.

Summing automatic tests up

- unit tests - functions and static methods,
- integration - software communication,
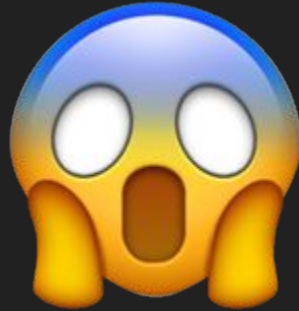- e2e - automated real human behaviour.

"CI/CD friends"

Show me the code - unit vs integration vs e2e tests

How does that relate to a daily Front-End development?

It does up to some point

😱

Unit tests - vitest

1. In-source tests:
    - Unit testing for small-scoped functions or utilities
    - Prototyping
    - Inline Assertion
2. Spy vs mock fn

Integration tests from a FE dev perspective

- services (classes, modules, composables etc.)
- components

UI components - SFC Vue components

Input:

- component data
- props
- user interaction
- lifecycle methods
- data from store management
- route params

Output:

- what is rendered to the DOM
- events emitted by components
- lifecycle methods
- updates to store
- changes in child components

More info

- https://vitest.dev/
- https://testing-library.com/docs/
- https://jestjs.io/docs/getting-started
- https://www.youtube.com/watch?v=FJRuG85tXV0
- TDD - https://www.youtube.com/watch?v=EZ05e7EMOLM&t
  https://www.youtube.com/watch?v=DD1fEhcEzY8

Thank you!